

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



10/518832



(43) International Publication Date
8 January 2004 (08.01.2004)

PCT

(10) International Publication Number
WO 2004/003604 A1

(51) International Patent Classification⁷: G02B 5/00,
G02F 1/13357, F21V 5/02

(21) International Application Number:
PCT/IB2003/002953

(22) International Filing Date: 13 June 2003 (13.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
02077562.3 28 June 2002 (28.06.2002) EP

(71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): MARRA, Johannes [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). GLAESER, Harald [DE/DE]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(74) Agent: PET, Robert, J.; Philips Intellectual Property & Standards, Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

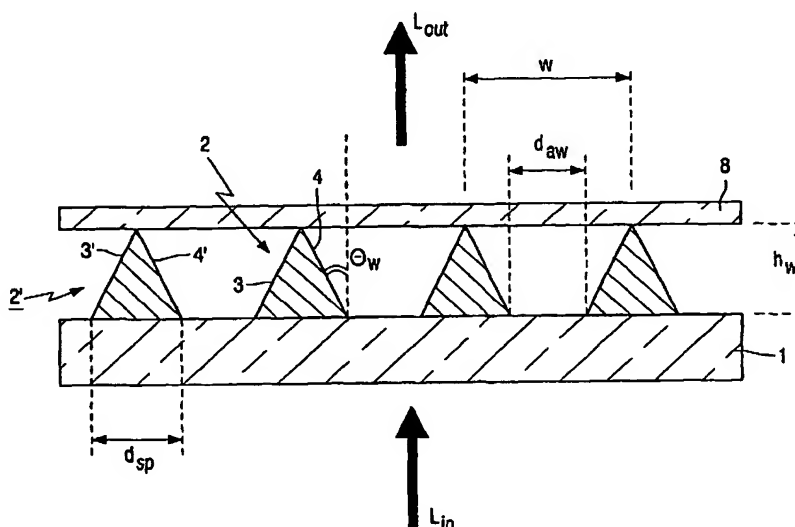
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: LIGHT-COLLIMATING SYSTEM



(57) Abstract: A light-collimating system for collimating light from a light source has a plurality of elements (2, 2', ..., 12, 12', ...). Each element includes a first wall (3, 3', ..., 13, 13', ...) and a second wall (4, 4', ..., 14, 14', ...). The first wall and the second wall of each element are spaced with respect to each other. The first wall (3; 13) of an element (2; 12) and the second wall (4'; 14') of an adjacent element (2'; 12') form a wedge-shaped structure widening in a direction facing away from the light source. The first and second wall are at a side facing the wedge-shaped structure provided with a specular reflecting surface. Preferably, the space formed between the first and second wall of each element and the supporting member is provided with a specular and/or diffuse reflecting material.

WO 2004/003604 A1